

CIO

SAFER SOCIAL NETWORKING

Balancing online chat with regulations 11

PROFITING FROM BAD DECISIONS

Designers, keep human foibles in mind 14

TECH ON THE MENU

The benefits of an IT service catalog 16

5 THINGS TO KNOW ABOUT BIG DATA

The info is there; the talent isn't 18

Second Thoughts on Offshoring

CIOs are reexamining their outsourcing mix and bringing some—but not all—IT back in-house 22

BY STEPHANIE OVERBY

PLUS

3-Minute Coach:

How to command the room as an event speaker 8

Mobile in the Enterprise: The Gap Between Expectations and Expertise

MOBILE TECHNOLOGY IS ON THE BRINK OF TRANSFORMING BUSINESS, BUT MOST ORGANIZATIONS NEED HELP.

Mobility is a major trend in business, and its significance will increase—substantially—over the next several years.

Technology executives must understand enterprise mobility and how their organizations can benefit from it. That's why SAP and CIO surveyed business technology executives to gauge current developments, opinions and expectations related to enterprise mobility.

The results are both insightful and surprising. Most executives agree that mobile can transform how their organizations do business. Many of them point to productivity gains already made, and most have high expectations that mobile can boost their productivity, customer engagement and competitive advantage.

It's surprising, then, that very few organizations today have enterprise-wide mobile strategies. It's a vital missing piece that will hurt many organizations going forward.

» Both Sides Now

Mobile is not unlike other disruptive technologies gone by. "The wrinkle with mobile is that it changes very fast and is pervasive," says Vishy Gopalakrishnan, VP, Mobility Solutions, at SAP.

What's driving the mobile imperative is two things: (1) the ubiquity of mobile devices caused by the widespread "consumerization of IT" and (2) managers' and ambitious employees' demand for real-time information.

Also, senior executives in both business and technology are championing mobile investments. And the push is also coming from companies' ecosystem of partners and customers.

» Leap of Faith

"The simple truth is that mobility is key to our success," says William Morse, CTO of the University of Puget Sound.

Nearly three-quarters of the tech execs who participated in the survey (71 percent)—more than two-thirds of whom are at the CIO, CTO or director level—see mobile as transformational or strategic. This is a significant vote of confidence.

Still, a quarter of the technology execs consider mobile simply a tactical tool. Why? Lack of IT resources, many say. The resource issue could prove to be a critical hindrance.

» Strategizing Strategy

Organizations with enterprise-wide mobile strategies are a small minority (18 percent), yet almost all organizations agree that mobility needs planning and care.

More than a third of the respondents said that mobility strategies are developing ad hoc in business units. This "organic" approach may be the most practical, and most effective, given how fast mobile is developing.

In fact, the VP at one 85,000-employee insurance company is trying to instill "bottom up" thinking while fighting against a tendency toward "top down" mobile strategy-making and implementation, which has not yet yielded the benefits the company is seeking.

» Adventures in Architecture

What constitutes a mobile strategy? Commonly, it includes security policies/requirements, mobile device policies and management. These have become table stakes in the enterprise mobility game, mainly because they have been the most immediate pain points for enterprises.

Although "mobile architecture" scored fourth on the CIOs' mobile strategy wish list, fewer than half prioritized "processes for mobile application development." In other words, the actual means of creating a mobile architecture ranks only eighth in their priorities.

Organizations that consider mobile to be transformational or strategic tend to consider mobile app development processes to be strategic.

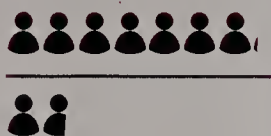


WAYS THAT BUSINESSES STRUGGLE WITH MOBILE

1 REALITY GAP

71%

OF SENIOR
IT LEADERS SEE MOBILE AS
TRANSFORMATIONAL
OR STRATEGIC



ONLY 18%
HAVE A
COMPREHENSIVE STRATEGY



2 SKEPTICS ABOUND

56%



ARE UNCLEAR ON THE
BUSINESS CASE

49%



DON'T SEE SUCCESS FROM
THEIR MOBILE INVESTMENTS

39%



LACK THE TIME
OR RESOURCES

3 EXPERTS NEEDED



50%

OF
ENTERPRISES LACK
MOBILE DEVELOPERS

HELP
WANTED

62%

OF APPS ARE
EITHER CUSTOM-BUILT OR
NEED HEAVY TWEAKING

Who Did We Ask?

IDG Research polled 140 members of CIO's invite-only LinkedIn Forum in February 2012, of which 99% held titles ranging from VP to CIO to IT manager.

» Mind the Gap

Half of the respondents said their organizations lack expertise in developing mobile apps. That's followed closely by a lack of expertise in managing mobile devices and supporting mobile applications.

Given that resource constraint, it's surprising that almost two-thirds plan to customize or build mobile applications in-house in the next year.

The desire to customize or build may come about because many near-term mobile apps are industry-specific. Line-of-business applications such as sales, HR and field services are also moving quickly to mobile. Productivity applications come in third.

» Value Proposition

For mobilizing applications, business value and usability rank 1 and 2, respectively. Security risk is a relatively low concern. So is the cost of developing apps. That's surprising, given the lack of enterprise expertise with apps. It strongly implies that organizations expect to reap big productivity and efficiency gains that justify their ROI.

Mobile is not a stand-alone phenomenon. It synergizes with other important trends such as cloud computing and social networking. That's why tech execs believe that cloud computing, presence and social media are the application areas that will generate the most business value related to mobility over the next 12 months.

» Anticipating Achievements

CIOs say that their mobile deployments to date have resulted in improved productivity and more-efficient processes. These wins are a function of time and familiarity. Companies have been raising productivity with mobile for well over a decade.

However, the really big benefits are still around the corner. Besides better productivity and efficiency, expect better customer support, increased competitive advantage and smarter decision-making. For most tech execs, these improvements are within close reach.

» The Partner/Provider Imperative

That's where a partner can help. An experienced mobile provider can help companies plan and achieve an enterprise-wide mobile strategy in a timely and effective manner.

Learn more at sap.com/mobilecio.

To read more about how CIOs are deploying apps, beefing up security, and embracing SoCloMo (Social-Cloud-Mobile), download the IDG Research whitepaper: www.cio.com/whitepapers/sapmobile

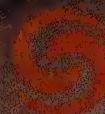




I AM NOT A ROBOT

I said no to the status quo and yes to ShoreTel UC

Thinking outside the box and avoiding the same old providers can be hugely rewarding for your business. Just ask anyone who has dismissed the status quo in favor of ShoreTel's fundamentally different all-in-one UC solution. With no legacy in the way, ShoreTel designed complexity out for an all-around ease that frees up your valuable IT resources, giving you the lowest total cost of ownership guaranteed. So why settle for average when you can do so much better? Visit shoretel.com/sayyes

 **ShoreTel**

Brilliantly simple™

Start

From the Editor in Chief 4

Chatter 4

From the Publisher 6

Quick Fix 8



4

Second Thoughts on Offshoring 22

COVER STORY CIOs are reexamining their outsourcing mix and bringing some—but not all—IT back in-house

BY STEPHANIE OVERBY



Dan Priest, CIO of Toyota Financial Services, inherited a lot of offshore IT operations but plans to bring some critical-systems know-how back in-house.



11

Grow

INNOVATION & BUSINESS VALUE

Keeping the social in social networking under tough financial regulations 11

IT projects boost profits, researchers find 12

Why we make irrational decisions, and how technology can help—or hurt 14

Run

LEADERSHIP & OPERATIONAL EXCELLENCE

How an IT service catalog can help get everyone on the same page 16

Big data is coming, and it's not just Hadoop 18

Don't misjudge the true cost of the cloud 20



16

Finish

Index 30

Two turntables and an iPhone: An app turns your friends into DJs 32



32



FROM THE
EDITOR IN CHIEF

start

CHATTER

Rebalancing Act

Of all the moving targets in corporate IT, offshore outsourcing inspires more emotional extremes than all the others combined. From fear and loathing in some corners to sustained cheering in others, this business of outsourcing (aka “your mess for less”) has a checkered history with CIOs.

With all the momentous IT change under way in business today—adopting consumer technologies, cloud, mobility and big data—IT organizations are under tremendous pressure to produce faster project turnarounds and increase speed to market. That’s tough to pull off when your developers work 10 time zones away.

So we’ve been asking CIOs how they’re meeting these escalating demands from the business. Who’s actually doing all that work? Naturally, we expected the answer to be “outsourcers” (and many times it was).

But as you’ll read in Stephanie Overby’s well-researched cover story (“Second Thoughts on Offshoring,” Page 22), we also got some unexpected replies about insourcing projects, rebuilding staff expertise and reclaiming lost technical competencies. We discovered a kind of rebalancing act under way, as organizations take another look at their sourcing strategies. Those dreams of big savings from overseas labor arbitrage have dissolved as wage inflation and overhead costs rise steadily around the world.

Consider some examples from our story: Offshoring pioneer GE, which has been sending work to India since the ’90s, is restoring some of the technical expertise it lost to outsourcing by hiring 1,300 IT and engineering pros in the next two years. Textron is shifting its offshoring work to its own captive IT operation in India to gain more control over its previously outsourced business intelligence projects. Western Union winnowed a dozen offshore outsourcers down to three. “I’m looking more at effectiveness and making sure that we have the right balance,” says former CIO John Dick.

Standard & Poor’s is pushing its vendors to provide offsite-but-local development options just a few hours away from Manhattan. “We’re seeing a real limit on the type of work we can offshore,” says CIO Joe Sniado.

At Toyota Financial Services, which is heavily outsourced and intends to stay that way, CIO Dan Priest is recalibrating his mix of outsourced and in-house talent. He’s taking a second look at positions that deal with integration, Web and mobile. “There really aren’t any standard practices or benchmarks for these kinds of [sourcing] decisions anymore,” says Priest. “You have to do what is right for the business.”

Maryfran Johnson, Editor in Chief, *CIO Magazine & Events*
mfjohnson@cio.com

CEOs’ Wish List for CIOs

In a recent post on her **Strategic CIO** blog, Senior Editor Kim S. Nash notes that lots of CIOs make money for their companies by creating **new products based on IT**. But CEOs are now upping the ante, she says, and expect **entirely new business models**. Ultimately, they want CIOs to provide a combination of **technology innovation** and redesigned **business processes**. Helen Cousins, CIO of Lincoln Trust, has shown how **IT can transform business**, and says the unstable economy has inspired executives to be more open to change. blogs.cio.com/node/16966

Big Data Difficulty

Contributing editor Elana Varon takes a **deep dive into big data**, talking with OnStar CIO Jeffrey Liedel about how he manages **three petabytes of data** a year and why that data is so valuable to both customers and **GM’s business**. Also, Bill Wray, formerly CIO and now COO of Blue Cross and Blue Shield of Rhode Island, shares how he streamlined operations to set up a **central governance** structure. Varon thinks the biggest issue CIOs face with big data is ensuring that access is **reliable**. www.cio.com/article/704281

Making Video Valuable

Everyone has seen the **viral videos** taking off on YouTube. But do they have any business value? Contributing Writer Jennifer Lonoff Schiff interviewed experts and found that **video can better describe your product** to customers and adds a lot to your website. She lays out 12 tips for getting **positive results**, including knowing your **target audience**, giving a **call to action**, and using customers in the video. www.cio.com/article/704621

Compiled by Editorial Assistant Lauren Brousell. Have a comment about a story in this issue? Go to www.cio.com/issue/20120515 or write to letters@cio.com.



NETWORK
SECURITY



SECURE
REMOTE ACCESS



WEB AND E-MAIL
SECURITY



BACKUP AND
RECOVERY



POLICY AND
MANAGEMENT

SONICWALL

DYNAMIC SECURITY FOR THE GLOBAL NETWORK

[TOUGH QUESTION #21]

WHO HAS THE HIGHEST OVERALL PROTECTION NEXT-GEN FIREWALL RECOMMENDED BY NSS LABS?

100% resistant to evasion

18.9 Gbps Next-Gen Firewall throughput

Highest connections/sec

Ultra low latency

**SONICWALL
SECURES THE
ENTERPRISE.**



According to NSS Labs, the global leader in independent security product testing, "For high-end multi-gigabit environments looking to upgrade defenses from their current firewall to a next-generation firewall, the advanced architecture of the SonicWALL® SuperMassive™ E10800 running SonicOS 6.0 provides an extremely high level of protection and performance. Those that consider the SonicWALL brand to be associated only with SMB UTM products will need to reevaluate their opinion." We couldn't agree more.

Get SuperMassive performance from your Next-Gen Firewall. Visit sonicwall.com/nss to learn why NSS Labs rated us so highly.

NSS Labs





FROM THE PUBLISHER EMERITUS

Drop Those Dishes

The conference rooms at *CIO* magazine are named after candies, and each contains a stash of its namesake snack. The room immediately across from my office is M&Ms, and I wandered in there one late afternoon in search of a chocolate rush. The jar was empty.

I knew where facilities hides the candy supplies, and as I opened the drawer to get my treat, I found something else of value: issues of *CIO* dating back to 1989. I grabbed a few to read while I ate my M&Ms.

Guess what was the main theme of the five 23-year-old issues of *CIO* I read that afternoon? CIOs have to become business leaders who understand technology rather than the other way around.

I found that fascinating, because the cover story of the January 2012 issue of *CIO*, which carried the results of the 2012 State of the CIO survey, was headlined "Business Disconnect," and detailed in depth the areas where CIOs and CEOs just don't see eye-to-eye. How come CIOs still don't get it?

Mark McDonald, a Gartner analyst who follows the CIO function, has an interesting way of describing this CIO quandary. He says, "CIOs are still doing the dishes."

Whether the CIO is in the boardroom or the kitchen, this much is certain: the business is losing patience with executives who are intent on maintaining control of IT instead of concentrating on leveraging IT to identify, or further, business goals.

Technology-as-a-service offerings and the consumerization of IT are tsunamis overtaking the CIO role, allowing workers to provision their own tech tools, taking what was once a key task for the IT department out of the hands of the CIO.

Knowing this, the CFO can now work with cloud providers and employees—not the CIO—to lower the cost of IT. Procurement departments will take over tech purchases in an increasingly open, virtualized IT infrastructure. And the legal department will iron out the service-level agreements, governance questions, risk assessments, and so on.

So what's a CIO to do? Why are you needed? What value will you bring to the corporation? (For some answers, see our May 1 cover story, "Top CIOs Predict the Future of the CIO Role," at www.cio.com/article/704050.)

You better get focused on the future, or "CIO" may soon stand for "chief irrelevancy officer."

Gary Beach, Publisher Emeritus
gbeach@cio.com



BUSINESS TECHNOLOGY LEADERSHIP

PRESIDENT AND CEO Michael Friedenber
GROUP PUBLISHER Bob Melk
PUBLISHER Adam Dennison
PUBLISHER EMERITUS Gary J. Beach
CHIEF CONTENT OFFICER John Gallant

EDITORIAL

EDITOR IN CHIEF
Maryfran Johnson
EXECUTIVE EDITOR
Mitch Betts
MANAGING EDITOR
Christine Celli
SENIOR EDITOR
Kim S. Nash
COPY EDITOR
Colleen Barry
CONTRIBUTORS
Joab Jackson, Stephanie Overby
EDITORIAL ASSISTANT
Lauren Brousell

CONTRIBUTING EDITORS

CIO EXECUTIVE COUNCIL
VICE PRESIDENT, EDITORIAL AND PROGRAMS
Rick Pastore
EDITORIAL MANAGER
Diane Frank

DESIGN

EXECUTIVE DIRECTOR, ART AND DESIGN
Mary Lester
ART DIRECTOR
Terri Haas

ONLINE EDITORIAL

EDITORIAL DIRECTOR
Brian Carlson
EXECUTIVE EDITOR
Dan Muse
ASSISTANT MANAGING EDITOR
Shane O'Neill
SENIOR EDITOR
Brian Eastwood, Al Sacco
SENIOR ONLINE WRITERS
Tom Kaneshige, Thor Olavsrud
STAFF WRITER
Kristin Burnham
ASSOCIATE ONLINE EDITOR
Sheryl Hodge

RESEARCH

RESEARCH DIRECTOR
Carolyn Johnson



CXO MEDIA INC.

©CXO Media Inc.

INTERNATIONAL DATA GROUP
CHAIRMAN OF THE BOARD
Patrick J. McGovern

IDG COMMUNICATIONS, INC.
CEO
Bob Carrigan



CONTACT US

WHO COVERS WHAT www.cio.com/staff
EMAIL letters@cio.com
PHONE 508.872-0080

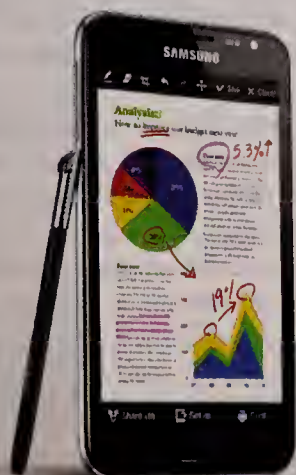
TO CIOs, WE APPRECIATE THE CHALLENGES YOU FACE.

When you want to

- Prevent breaches in mobile security,
- Keep business communications safe without limit,
- Ensure high-level of safe accessibility to corporate networks,
- Guarantee proven device encryption to secure corporate data,
- Use one device for both personal and work,

We can support

- Top-tier MDM solutions with 338 IT policies.
- Enhanced Exchange ActiveSync.
- Expanded VPN Protocols : SSL, IPsec, L2TP, PPTP.
- Samsung On Device Encryption, the first to receive FIPS 140-2 Security Certification for Android devices.
- Personal and enterprise separation using Virtualization.



We are prepared. Samsung GALAXY

The aim of every Samsung GALAXY device is to maximize efficiency and productivity of enterprise users. To learn more, visit www.samsung.com/enterprise or contact enterprise@samsung.com.

Three Ways to Win at Negotiating

"Ours is a culture where negotiating is not the norm, a factor made worse by people's fears over the economy and job market," says Selena Rezvani, author of *Push-back: How Smart Women Ask—and Stand Up—for What They Want*. Rezvani says we often think negotiating is asking for an exception to a rule, which means whether our request is granted depends on whether we deserve an exception. To get out of that mental rut, she suggests:

1 Do your homework. You can gain an advantage by drafting a plan for what you're proposing. Then highlight key details to save time.

2 Close the gap. Don't overestimate the power of the person you're negotiating with; see them as a peer. "This can make all the difference in getting the outcomes we want," Rezvani says.

3 If there's no precedent, still negotiate. Be the first to ask for it, make the case for how it will work, and build in checkpoints so your boss can evaluate progress.

—Kristin Burnham

WORTH FOLLOWING

Mobility

Need inspiration for developing a mobile strategy? We found two experts and one CIO who regularly share must-read articles, plus advice on navigating the enterprise's changing landscape. Find more by searching the hashtag #mobile.

1. **@chuckmartin1:** Chuck Martin, Director of the Center for Media Research
2. **@kimdushinski:** Kim Dushinski, Author and Founder of Mobile Marketing Profits
3. **@tjrothenberger:** Tracey Rothenberger, CIO and Chief Process Officer of Ricoh Americas

quick FIX



I am speaking at an upcoming event. How do I command the room?

ALWAYS think of your job as persuading the audience, not dumping information on them. Your presentation should begin by setting up the problem for which your information is the solution. Figure out what you want the audience to do differently as a result of your presentation, and persuade them of that. If you've presented the problem well, you've made your job easier. Audiences appreciate information delivered in a way that makes sense to them.

SOMETIMES vary when you take questions. Most speakers talk for 45 minutes and take questions at the end. But a typical attention span lasts about 20 minutes, so by 45 minutes, you've used up two attention cycles. Then there's the problem of leaving your parting words at the mercy of the questioners—the session may end not with your brilliant, prepared thoughts, but with the last dumb question. Instead, stop for questions at the 20 and 40 minute marks. Then, if you wish, pause one last time for questions at the end. But be sure to save time to deliver a killer closing remark.

NEVER fall into the Power Point Triangle of Death. I have seen so many speakers—even confident, highly paid speakers—talk to their slides instead of the audience. When the speaker stands between the computer and the screen, all his motions and gestures are confined to that triangle, not focused on the audience. Why is that bad? People are only interested in motion toward or away from them. Motion directed toward the screen or a computer causes us to check out. Learn your slides so you can address the audience.

Nick Morgan is the founder of executive training company Public Words and author of several books about public speaking.

Virtualize, the plug-and-play way.

With numerous hardware, software and networking options to choose from, virtualization can be a really complex process. The new IBM BladeCenter® Foundation for Cloud with Intel® Xeon® processors changes all that, dramatically.

It's a workload-ready platform with built-in management, so it's quick to deploy and easy to manage. Also, the system integrates seamlessly with your existing infrastructure. So you can get started at once, without wasting precious resources.

In addition, you have the option to transition to the cloud on your terms, not on your vendor's. For improved business agility and reduced IT costs, look to the IBM BladeCenter Foundation for Cloud.



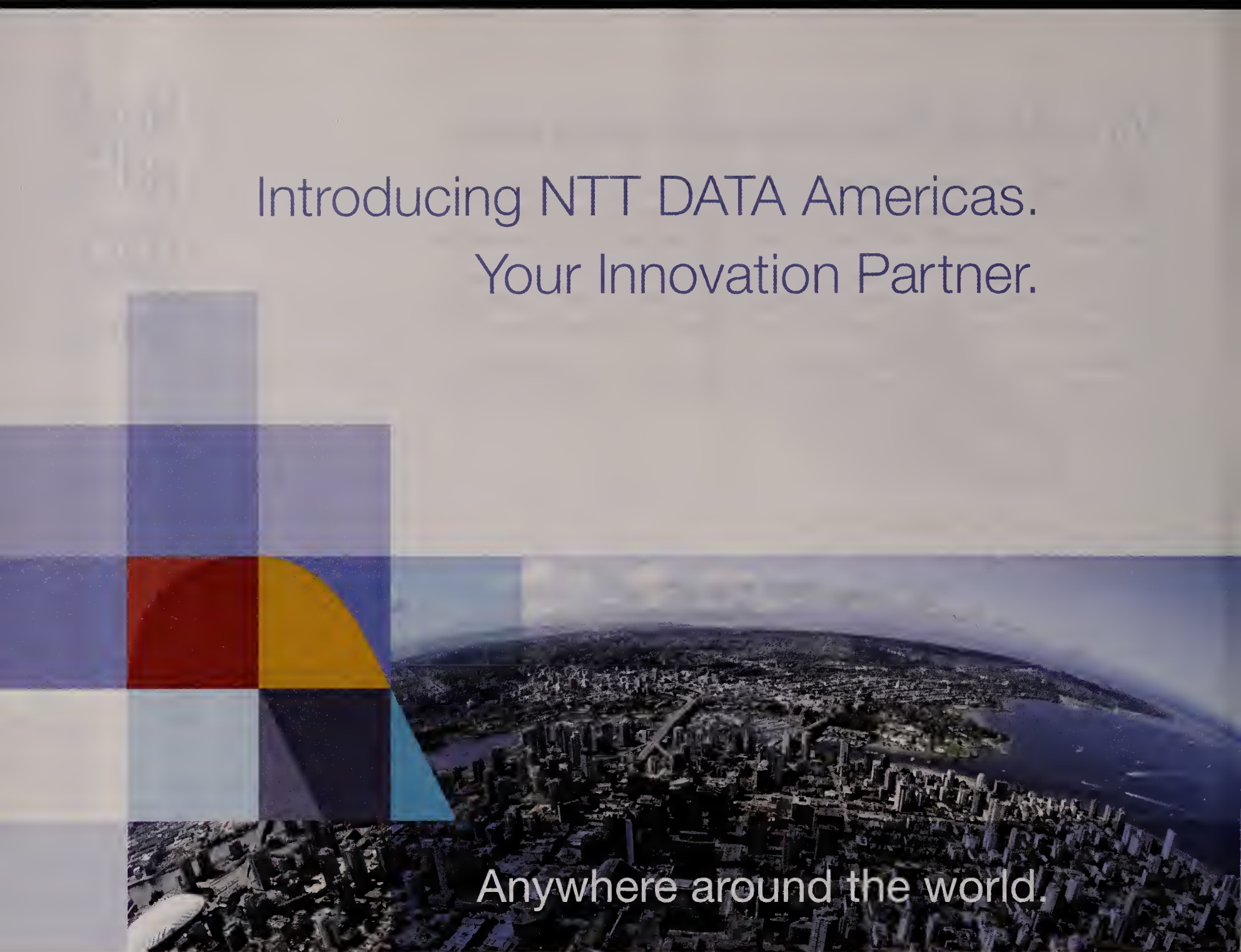
Take 10 minutes to see for yourself.

See how the IBM BladeCenter Foundation for Cloud makes things easy for you. Visit ibm.com/systems/foundation



IBM, the IBM logo, ibm.com and BladeCenter are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at www.ibm.com/legal/copytrade.shtml. Intel, the Intel logo, Xeon and Xeon Inside are trademarks of Intel Corporation in the U.S. and other countries. © International Business Machines Corporation 2011. All rights reserved.

Introducing NTT DATA Americas. Your Innovation Partner.



Anywhere around the world.

Seven companies integrated as one NTT DATA Americas team.

AgileNet | Intelligroup | Keane | MISI Company | NTT DATA International | The Revere Group | Vertex Software

Every day around the world NTT DATA helps companies of all sizes to flex their businesses, enabling them to capitalize on opportunities and manage risk faster and more efficiently. We have the technology know-how, industry insight, and global reach you need to navigate changing conditions.

We deliver impactful results. Not endless timelines, overblown budgets, or unattainable promises.

- Consulting
- Application Services
- Infrastructure Services
- Cloud Services
- Business Process Outsourcing
- Strategic Staffing

NTT DATA
Global IT Innovator

Learn more. www.nttdata.com/americas



11

Safer Social Networking

Commonwealth Financial learned how to balance online customer engagement with regulatory compliance **BY KIM S. NASH**

Striking up business relationships through social media lets companies and customers casually interact and build trust. But unfettered personal dialogue is exactly what makes financial services companies hesitate to join Facebook, LinkedIn and other social networks.

Government and industry regulations require banks, brokers and others to monitor what employees say to clients and then be able to produce that material during audits and lawsuits. But it's hard to record and archive social media interactions because they often take place outside corporate networks, and the sheer volume of data they generate can be difficult to manage.

Still, financial services companies have to find a way to use social media as commerce develops there, says Todd Estabrook, CMO at Commonwealth Financial Network. The IT, compliance and marketing groups at the \$640 million independent broker and dealer have together experimented with enterprise use of social media, learning what works and what doesn't.

Typically, it takes several "touches," or instances of interaction, before a prospect becomes >>>

.....**59%** Senior marketers who say that any companies that don't fully embrace social media won't survive.

Facebook/Forrester**56%** Data that is lost as a result of hardware failure (26% is lost due to human error). Kroll Ontrack

►► Social media Continued from Page 11

a paying customer. "Financial planning is a relationship business," Estabrook says. Social media can be an effective way to supplement the calls, direct mail and seminars financial planners use to build relationships.

Early last year, Commonwealth Financial stepped gingerly into social media by allowing financial planners to post pre-approved personal profiles on LinkedIn, Facebook and Twitter. The compliance department vetted the material and instructed employees to turn comments off and not respond to posts. The static content and lack of conversation, while simple to archive, took the social out of social media. Just 100 of the company's 1,400 planners participated, Estabrook says.

Michael Sundberg, director of information security at Commonwealth Financial, was reluctant to push further into social media because browsers or network-based tools for archiving social media interactions have limitations. For example, they work only on specific computers or networks. If a financial planner logged on to Facebook on his home computer, the plug-in on the office computer or corporate network wouldn't know.

But last summer, Sundberg found a compliant way to allow interactivity.

A service from Erado, which specializes in archiving electronic communications, can log social media activity by user account, no matter how or where a person accesses a social site, Sundberg says. Commonwealth Financial still vets profile descriptions and disclosure statements for compliance with regulations. But it now allows comments and conversations because they can be archived and spot-checked for compliance via the reports Erado generates. About 700 of Commonwealth Financial's planners now use social media.

Estabrook says he can't quantify any sales attributable to social media, but allowing financial planners to talk to prospects online adds to the interactions that precede a deal. "It's not magic bullet, but it needs to be part of the strategy," he says.

Senior Editor Kim S. Nash can be reached at knosh@cio.com. Read her blog, Strategic CIO, at blogs.cio.com/blog/strategic-cio.

crunch

Mobile Lost & Found

People are most likely to lose their smartphones at **coffee shops** and **bars**, according to a study of 15 million smartphone users.

City	Place where phones are most often lost
New York	➔ Fast-food restaurant
San Francisco	➔ Coffee shop
Philadelphia	➔ Automotive shop
London	➔ Pub

SOURCE: LOOKOUT, A MOBILE SECURITY COMPANY, MARCH 2012

Study Links IT and Profits

Earlier academic studies didn't find a connection between IT spending and profits, but new research has a more upbeat conclusion: Investments in IT can have a positive effect on profitability—one even more pronounced than comparable spending on advertising.

The study, published in the March issue of *MIS Quarterly*, examined data gleaned from more than 400 companies around the world between 1998 and 2003.

The study is good news for CIOs, but the authors note that some companies are better at wringing profits out of IT than others. Moreover, the IT projects that boosted profits were those that focused on raising revenue—not those that aimed to cut costs. For growth-oriented projects, an increase of \$1 per employee in IT spending was associated with an increase in sales of \$12 per employee, the researchers say.

In a summary of their research in the *MIT Sloan Management Review*, the researchers offer this takeaway: "All other things being equal, executives should accord higher priority to IT projects that have the potential for revenue growth over those that focus mainly on cost savings."

—Mitch Betts

••• **60%** Small businesses planning to spend as much or more on online marketing efforts this year as they did last year. AT&T ••• **27%** Young adults who learned of the Kony 2012 video through social media. Pew Internet and American Life Project

Always
available

Enterprise Cloud Solutions

Secure, enterprise-grade, private, public and hybrid cloud solutions with contractually guaranteed uptime levels. All backed up by decades of experience and proven availability expertise. Always.

Managed IT Services. Recovery. Cloud.
Find out more at www.sungardas.com

SUNGARD®
Availability Services

Laurie Santos,
associate professor
of psychology
at Yale University



Profiting From Our Bad Decisions

A Yale researcher says we should design systems and products with human foibles in mind BY KIM S. NASH

In her "monkey economy" experiment, Laurie Santos, associate professor of psychology at Yale University, shows that monkeys trading for treats make irrational decisions similar to those humans make in a monied economy. We design systems too difficult for our brains to navigate successfully, she says, and technology both helps and hurts.

What irrational things did the monkeys do when trying to get treats?

They evaluated situations in relative terms, rather than absolute terms. They were averse to losses, wanting to avoid ever going into the red, even when doing so would have helped them long term. They work harder to avoid losses than to seek out equally sized gains. Those are the salient features in how we make decisions. So we should worry when we design systems that require people to process things in an absolute way. They won't do it. Imagine you're trying to design a system to tell people that their bank account or stock portfolio is doing something. They're not paying attention to absolute numbers, but to the changes from last time.

Why are we so smart but make colossal mistakes?

Modern humans live in environments that our brains weren't evolved for. You can overcome biases, but it takes a lot of work and will never be automatic. We were hunter-gatherers. The kinds of technologies we use are different from what we were built for. We do OK, but we could do better if technologists thought more about the constraints of human cognition.

How?

Think about designing systems and products with people's foibles in mind. We design now thinking people are going to be rational and make decisions with perfect math, but that doesn't happen. Technology designers should think about people in the field. We

have complicated lives and want to do things quickly and have limited time to process information.

Can companies use that knowledge to their advantage?

Companies were savvy about people's mistakes long before social scientists. Look at advertising and marketing. But there are ways to align with consumers and gain trust. People want to overcome their limitations, too. If you give them a mechanism to do that, they will like you.

They will buy from you. Odysseus tied himself to the mast of his ship to avoid succumbing to the sirens' song. People will pay to get tied to their masts.

So human foibles are profitable?

Look at the food companies that offer 100-calorie packs. Companies are benefiting from helping people control an urge. People

will eat until the serving is gone. The whole package is your reference point. Companies are making money on that. Now the new insight is for companies to think, "If we develop products to overcome human biases, they will buy them." Small changes to technologies or products can change the way people behave, sometimes in ways that benefit both customers and companies. People will pay to have their biases curbed.

Contact Senior Editor Kim S. Nash at knash@cio.com. Read her blog, Strategic CIO, at blogs.cio.com/blog/strategic-cio.

We could do better if technologists thought more about the constraints of human cognition.

**It's not just a wool cap.
It's an opportunity.**

Opportunities are created and protected
in the AT&T network.

In here, vendor access is secure.
Communications are simple and safe. Retail
transactions are protected — online and in-store.

As demand spikes, stores and suppliers can
react instantly. From any device,
anywhere in the world, buyers can contact suppliers
securely to get what they need overnight.

In here, a wool cap goes from "nice"
to "phenomenal" in one season.
To learn more, visit att.com/business

NEW TREND

GLOBAL
PHENOMENON



Download the free scanner app at <http://scan.mobi> and scan this code to learn more.

© 2012 AT&T Intellectual Property. All rights reserved. AT&T, the AT&T logo and all other AT&T marks contained herein are trademarks of AT&T Intellectual Property and/or AT&T affiliated companies.

Rethink Possible®



IT à la Carte

How Orange County educates users, lowers costs and markets IT with its service catalog **BY LAUREN BROUSELL**

Joel Manfredo, former CTO of the County of Orange California, had a daunting problem when he was hired in 2008. His staff, with help from staff augmentation contractor ACS, provided enterprise IT services for 18,000 employees in 30 agencies. It was a siloed arrangement that was sometimes adversarial, often inefficient, and always left Manfredo shaking his head.

Staff managed the workload by being wholly reactive, he says, with no way to set priorities among the 77 projects they might be handling at one time. "I knew I wanted to change our focus to look forward instead of fighting the fire of the moment," he says.

Manfredo also wanted to improve the working relationship between county staff and contractors, shifting them away from an us-versus-them mind-set and toward seeing each other as one IT team. To get started, he brought in an outside facilitator to lead monthly meetings designed

While **Joel Manfredo** was CTO of Orange County, he created a service catalog and worked to bring county staff and contractors together to improve IT services.



IF WE



want desert cities to drink,
where do we get fresh water?

Harvesting icebergs
– a dream our software could bring to life.

The Antarctic continent, accounting for more than 80 percent of the world's fresh water, naturally releases thousands of icebergs every year. French marine engineer Georges Mougin has long dreamed of towing these ice mountains across the globe – and realizing the massive potential of a global resource that would otherwise simply melt away.

The 3DEXperience platform from Dassault Systèmes is helping to turn Mougin's dream into reality. Recreating his vision in a scientific virtual environment, we modeled and simulated icebergs, ocean currents and wind, marine equipment, weather conditions and new marine innovations. In this way, Mougin has not only validated his idea – he can now also share the vision with those who can help him bring it to life.

**Our software applications for the
3DEXperience platform:**

CATIA / SOLIDWORKS / SIMULIA / DELMIA / ENOVIA
EXALEAD / NETVIBES / 3DSW4M / 3DVIA



It takes a special kind of compass to explore the world's future possibilities. Innovative companies use our 3DEXperience software platform to understand the present and navigate the future.

Find out more: 3DS.COM/IFWE



3D DASSAULT
SYSTEMES

IF WE ask the right questions
we can change the world.

to bring people together and establish action items that could be completed within 30 days.

"We wanted staff to see that it was irrelevant whose signature was on the paycheck," says Manfredo. "The goal was the effective delivery of services to our customers." The meetings also helped improve accountability.

Manfredo's next move was educating customers whose understanding of IT costs was based on things like their home Internet bill, where they pay a flat fee each month and don't need to know the true value of the data they use. "I needed to get people to understand IT as a service, to get them to question why IT costs what it does," Manfredo says. "You can't get to effective IT governance without charging for services."

To clearly communicate what services can be delivered, the team created a service catalog detailing 33 IT offerings that the county's other agencies can shop for.

Each service is clearly described, including an explanation of pricing and how the agency charges, along with some service tips. Then, to create buzz about the new processes, the staff created a marketing brochure, complete with testimonials. "The idea was to generate interest in what we do. We do operate like a business—most people don't know that," Manfredo says.

Mike Kerr, director of IT at Orange County's district attorney's office, says the change in county services provided much-needed transparency and documentation. "If something goes down, the staff can look at the documentation to solve the issue," he says. He also says the ease of enrollment in new services is a major plus. "They come out to my office, which is only five miles away, and we draw it out on the whiteboard."

Jean Yu, director of the IT division at the local probation department, adds that the county's efforts to centralize IT have lowered operating costs and been an overall improvement. "They have established a lot of procedures and policies that are better than before."

Manfredo says the lower cost came from a reduction in contractor staff, and adds that he's seen a 38 percent reduction in the kind of problems his department regularly had to fix when he first came on board. "That reduction owes to better processes and proactive monitoring," he says. "Along the way, we added documentation for over 250 procedures that didn't exist."

Orange County is now in the process of expanding the service catalog to add more offerings. "The mojo moment was when we had a month without a single service-level breach," Manfredo says. "It was far more successful than I anticipated."

Contact Editorial Assistant Lauren Brousell at lbrousell@cio.com. Follow her on Twitter: twitter.com/lbrousell.

Things You Need to Know

BIG DATA

1 YOU HAVE TO CONSIDER IT. Enterprises need big data analysis to stay competitive. "You could be a really small company and have a lot of data," says Jo Maitland, GigaOM research director for big data. In the next few years, a variety of industries—such as healthcare, retail, manufacturing and the public sector—will financially benefit from analyzing their data, consultancy McKinsey and Company predicts. There is an "air of inevitability" around Hadoop and big data implementation, says Eric Baldeschwieler, CTO of Hortonworks, a Yahoo spin-off that offers a Hadoop distribution.

2 USEFUL DATA IS EVERYWHERE. You may not think you have petabytes of data worth analyzing, but you will soon, if you don't already. It could be in your server's log files, for instance, and it can offer insights into your customers. Log data analysis isn't new, but now it can be broken down with dizzying granularity. And for years analysts have been prophesying the Internet of Things, in which sensors on objects are connected to the Internet, offering continual streams of data about their use. "The real value around such devices is their ability to capture data, analyze that information and drive business efficiencies," says Microsoft Windows Embedded General Manager Kevin Dallas.

3 YOU'LL NEED NEW EXPERTISE. Your biggest hurdle will be finding the right talent to manage the tools that analyze the data, according to former Forrester Research analyst James Kobielus. Organizations will "have to focus on data science," Kobielus says. "They have to hire statistical modelers, text-mining professionals, people who specialize in sentiment analysis." You also need people on hand who can wrangle the large quantities of hardware needed to store and parse the data.

4 ORGANIZATION IS NOT REQUIRED. Collect the data first and then worry about how you will use it later. "You can use a [big data repository] as a dumping ground and run the analysis on top of it, and discover the relationships later," says Jack Norris, marketing VP at MapR Technologies, which sells a Hadoop distribution. Many organizations don't know what they're looking for yet, so having this freedom "is kind of big deal," he says.

5 HADOOP'S JUST ONE OPTION. "Hadoop is a hot-button initiative, with budgets and people assigned to it," in many companies, Kobielus says. But you might take another route. LexisNexis recently made its platform open source to allow better analysis. And a tool called Splunk is gaining favor—it can analyze machine-generated data, such as server log files. "Whatever you extract from your logs, there is a good chance Splunk can help," says Curt Monash of Monash Research.

—Joab Jackson



You're thinking, I need a technology partner that can deliver to the same standards in Tangier as it does in Tokyo.

We're doing...

Expanding into new territories is challenging, considering the cultural, regulatory and practical complexities that come with conducting business in foreign countries. Dimension Data's presence in 150 countries across five continents, equips us to deliver standardized, consistent services and solutions to clients in all of them. This, combined with our multi-vendor expertise, flexible global transactional models, e-procurement system and network of Preferred Partners, will help your business grow a formidable international footprint.

Contact us at 1.866.DIDATA US, or visit dimensiondata.com to learn more about Dimension Data's solutions for accelerating your business.



Why Planning Makes Perfect

Understanding the true cost of cloud and its potential business value leads to successful adoption **BY THOR OLAVSRUD**

Technologies like virtualization and cloud computing promise huge leaps forward in efficiency but can lead organizations into a quagmire if they don't plan properly for the transition, says Bill Hurley, CIO, CTO and executive vice president of Westcon Group, which sells unified communications, network infrastructure, and data center and security systems.

"About three years ago, we realized we needed to consolidate our data centers," Hurley says. The firm had used its New York and London data centers to back each other up. But it became impossible to keep using that technique because, after years of maintenance by different teams, the centers had different configurations and architectures.

"We came to a quick realization we could do better with a single data center with a hot site for backup," Hurley says. "About one-third of our platform needed to be refreshed."

But while Hurley was planning the consolidation, engineers started virtualizing the older, more crash-prone servers. When their efforts led to real improvements, Westcon decided to formalize it, add some money, and turn it into a real project.

"We were just going to replace our data center with a like configuration," Hurley says. "But then we started to realize this virtualization thing could save us a lot of money."

Working with Cisco, the company made the transition by first virtualizing its environment as it was and then moving the virtual machines (VMs) to its new data center. Hurley says the result was a two-thirds reduction

in heating and cooling costs, fewer engineers focused on supporting equipment, and a more agile environment. He also notes the move greatly reduced Westcon's outages.

"We received a tremendous number of benefits over and above our initial ROI," he says.

Avoiding Cloud Stall

Hurley says "cloud stall" happens when execs fail to explain a project's business value before they get started. Organizations often base

to make sure you're not going to be surprised."

Some organizations also assume that moving to the cloud means they can reduce or eliminate their IT function, and that's another huge mistake that can lead to cloud stall.

"I'm always amazed that the commentary with the cloud is that you don't need IT anymore," Hurley says, noting that cloud services often change the focus of IT but they don't eliminate the need for it. Organizations still need to keep their networks

"There's a tremendous amount of preparation work that needs to be done before you jump into the cloud."

—Bill Hurley, CIO, CTO and EVP of Westcon Group

their estimates solely on the cost of the VMs and fail to consider the concomitant infrastructure costs for storage, networking and security. As a result, projects struggle to even get off the ground.

"For every dollar spent on virtualization software, the IT manager should expect to spend another \$11 or \$12 on infrastructure for that virtualization project or they end up running out of money before they achieve the effects they were looking for," he says.

"There's a tremendous amount of preparation work that needs to be done before you jump into the cloud," he says, noting that the way you use software inside the enterprise may not be the same way it will be used in the cloud. "Everybody's all hot and bothered by \$5 per person, per month for email, but you really need to spend an extra \$50,000 or \$100,000 up front

up and running and their security working, and they will need to integrate their new cloud services with business processes.

"That integration effort can be complicated, depending on the maturity of the cloud service provider and the offering they have," Hurley says.

Some companies that run the numbers will find that it's better to wait a few years before taking the leap.

"In that ROI analysis, you might be pointing out all the savings, but you're also going to have to buy bigger pipes for the bandwidth," Hurley says. "It may be that the ROI still works. But make sure. The stall factor happens when there are surprises."

Thor Olavsrud is a senior writer for *CIO.com*. Contact him at tolovsrud@cio.com, or follow him on Twitter at twitter.com/ThorOlovrsrud.

REDEFINE

data center expectations with
the power of convergence.

HP ProLiant Gen8 Servers—the world's most intelligent servers revolutionize IT so you're ready for what's next.

The next generation of HP ProLiant servers are the answer for insatiable demand for services and data, delivering breakthrough performance, efficiency, and reliability.

With HP ProActive Insight architecture and over 150 groundbreaking design innovations*, HP ProLiant Gen8 servers represent a revolution in server self-sufficiency. They're so advanced, you'll rethink how you run your data center—and your business.

Turn IT innovation into business acceleration.
hp.com/go/portfolioCIO



*For details on claim substantiations, visit hp.com/go/portfolioCIO

© Copyright 2012 Hewlett-Packard Development Company, L.P. The information contained herein is subject to change without notice. The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

Intel, the Intel logo, Xeon, and Xeon Inside are trademarks or registered trademarks of Intel Corporation in the U.S. and/or other countries.

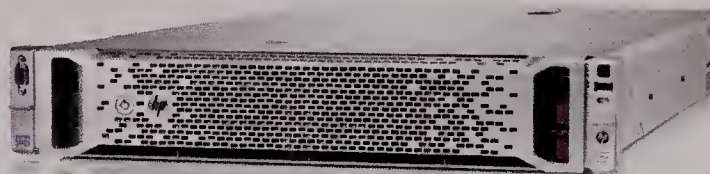


HP ProLiant DL360p Gen8 server

- Powered by the Intel® Xeon® Processor E5-2600 Series
- Increased drive capacities and memory slots for high-end workloads
- Unique innovations for ease of serviceability

Starting from \$2,749 (Save \$512)

Smart Buy Lease for just \$79/mo.†



HP ProLiant DL380p Gen8 server

- Powered by the Intel® Xeon® Processor E5-2600 Series
- World's best-selling server now enables GPUs for compute-intensive applications
- New storage controllers and drives optimized for balanced performance across workloads

Starting from \$2,829 (Save \$502)

Smart Buy Lease for just \$81/mo.†



HP BladeSystem with HP ProLiant BL460c Gen8 server blades

- Powered by the Intel® Xeon® Processor E5-2600 Series
- 33% more memory capacity for better virtualization
- Integrated lifecycle automation

Starting from \$3,549 (Save \$1,085)

Smart Buy Lease for just \$101/mo.†

HP Care Pack Services—Extend your product warranty with convenient support packages that proactively protect your hardware and software investments.

HP Qualified Options—Complete your data center with qualified options that ensure the highest level of power efficiency, performance, and control.

HP Insight Management—Unlock your infrastructure's potential with easy-to-use integrated server management software from HP.

†Prices subject to terms and conditions. For further details, visit hp.com/go/portfolioCIO





Second Thoughts on Offshoring

CIOs are reexamining their outsourcing mix and bringing some—but not all—IT back in-house

BY STEPHANIE OVERBY

The history of corporate IT has always been marked by extremes. One year, CIOs are centralizing IT; the next, federation is all the rage. It's all about enterprise software suites until a best-of-breed approach takes hold. Everyone believes that custom applications are the key to competitive advantage, and the next thing you know it's standardization or bust.

So as CIOs enthusiastically pursued IT outsourcing—and, more recently, offshore outsourcing—it was only natural to expect an eventual 180-degree turn.

But that's not exactly what's happening. CIOs who handed off the entirety of IT to a third party haven't brought it all back in-house. Technology leaders racing toward an 80-20 offshore-to-onshore ratio for IT service delivery didn't suddenly decide to invert those figures.

The shift in IT sourcing strategy has been subtler than that, but no less profound: CIOs today are taking a more surgical approach to outsourcing. A bias to send as much development work as possible offshore has been replaced by a predisposition to keep a greater portion of that nearby or in-house. And the once-shrinking category of the IT organization's core competencies has been quietly growing once again.

Take GE, the offshore outsourcing pioneer that began sending work to India more than 15 years ago. A bellwether for IT outsourcing, the \$150 billion company once had half of its IT work being done by non-GE employees. Since 2009, GE has been moving to regain some of the technical capabilities it lost through offshoring and outsourcing—it's working to hire 1,300 IT and engineering professionals at its Advanced Manufacturing and Software Technology Center (AMSTC) in Michigan by 2013.

Once fully staffed, AMSTC will be GE's largest collection of IT experts. Workers will focus on innovation, like developing industry-specific monitoring and diagnostic tools, business and product intelligence systems, and data architecture strategy. "It mark[s] a significant investment in IT and in regaining some of the technical intellectual property we had outsourced in the past," says Ron Utterbeck, CIO



23

Dan Priest, CIO of Toyota Financial Services, inherited an IT model that was heavy on offshoring, but says he's now looking to "do more onshore, if it's viable."

for GE Corporate and AMSTC. In August 2011, the company opened the doors of its 200-person Information Security Technology Center outside Richmond, Va., and in February 2012 it announced the creation of a technology center for GE Capital in New Orleans, which is expected to employ 300 IT professionals.

That's a fraction of GE's 9,600 IT employees, but it's a significant shift in philosophy. And as GE goes, so goes much of corporate IT.

"We've almost reached a point of equilibrium," says John Dick, who was the CIO of Western Union until recently. Over the last five years, he settled on a model that has 65 percent of the company's 1,700-person IT workforce in-house and 35 percent employed under services contracts.

"Many organizations have been beefing up their internal organizations for several years now after outsourcing a good piece of their IT work," says Phil Fersht, founder of outsourcing analyst firm HfS Research. "In many cases, IT departments have moved out too much work that requires closer interaction with the business and an understanding of the organization's institutional processes. Many have had to feel their way in learning what balance of in-house [versus] outsourced works for them."

The 80-20 Ratio That Never Was

When Joe Sniado became CTO at Standard & Poor's six years ago, the company was in passionate pursuit of what many CIOs considered the ideal ratio of offshored to onshore IT delivery: 80-20.

And, like most IT groups, they never got there.

There was solid tactical and strategic reasoning behind the goal. "We needed to do a lot more work to support a business that was globally integrated. We needed to digitize our business," says Sniado, now CIO. "We didn't have sufficient staff in our New York office to get that done, and it would have been too expensive to build it out. That drove us to an offshore model."

But in 2008, S&P adopted new agile development processes to help the business increase speed to market. At first, agile and offshore didn't mix.

That's when they ran into headwinds on the journey to 80-20, says Sniado. "We were finding it hard to work with offshore teams with these new software methods," he says. S&P had to train its offshore outsourcers in its own version of agile development. Any offshore outsourcing veteran knows that to succeed, the customer may have to make an investment in adopting the processes of the vendor, but financing training in the other direction isn't often factored into the equation.

Even then, some of the offshore partners were slow, and that had a ripple effect on the business.

"We had to figure out how to deal with that, because that velocity was tied to how fast we could get new things into the marketplace," Sniado says. "We were frustrated."

Five (Other) Outsourcing Trends to Watch

1 Smaller Deals. A decade-long decline in the size of IT services contracts continues. While the number of mega-deals and midrange contracts awarded each year has remained fairly stable since 2002, the number of those worth \$100 million or less has more than tripled, according to outsourcing consultancy Information Services Group (formerly TPI).

2 New Pricing Models. With continued pressure on their profit margins, outsourcing providers are considering more innovative—and often riskier—engagement models, including joint ventures, business-outcome-based pricing, revenue-sharing arrangements, and dedicated centers of excellence.

3 Multi-Sourcing Wranglers. CIOs have largely rejected broad, single-source deals in favor of a best-of-breed outsourcing model that uses a variety of specialty firms. But that doesn't mean they've figured out how to manage the multi-sourcing beast. Some IT organizations are hiring people to bring the necessary management skills in-house. But IT service providers are also setting themselves up as services integrators that will oversee multiple providers and manage end-to-end delivery. Time will tell how well this fox-watching-the-henhouse model plays out.

4 Increased Focus on Security. It's only a matter of time before a major IT service provider suffers a public security breach. Outsourcing companies are looking for new and better ways to protect data—their own and their customers'—says Mark Ruckman, an independent outsourcing consultant at Sanda Partners. In the meantime, security liability limits have become one of the most contentious negotiation issues between outsourcing customers and vendors today.

5 Cloudsourcing. The outsourcing deal pipeline is getting a boost from such next-generation delivery models as cloud offerings and remote infrastructure management, says consultancy Everest Group. Service providers are trying to address some of the technical and perception issues that have delayed widespread adoption of cloud services. —S.O.

Sniado eliminated suppliers that couldn't pick up the pace and required the rest to provide more on-site personnel. "That drove up costs but accelerated development," he says.

"The nature of technology projects is changing; people are doing smaller, more controlled projects with more agile-based methodologies that require that technical practitioners be involved in not just application development and testing, but also the entire process," says Jeff Wissink, partner with business and technology consultancy Navint Partners. "It's just not terribly practical to try to invoke the offshore model with these kinds of more fluid IT-governance structures, nor are the cost savings as tempting or obvious."

Sniado is now pushing providers for more offsite-but-local options, ideally two to three hours outside Manhattan—close

Confidence

CenturyLink is committed to help with premier business IT services.

With CenturyLink, you get a global partner with a fast service delivery platform that speeds up cycle times for ordering, provisioning and contracts. And with our reliable and secure data transport system, you can enjoy the peace of mind that comes with knowing your data and transactions are safe. Reassuring, isn't it?

Data | Voice | Managed Services | Cloud

centurylink.com/business



CenturyLink®
Business

Your link to what's next™



To match the speed of the business, **Joe Sniado**, CIO at Standard & Poor's, is moving some IT work closer to HQ and away from slower-moving offshore partners.

enough to reach by train but far enough from corporate headquarters that salaries are 25 percent lower. "We're seeing a real limit on the type of work we can offshore," says Sniado. The 80 percent offshore objective has been discounted to at least 70 percent. For new development, it's closer to half.

"80-20 is an easy thing to measure when you think [that goal] is highly correlated to saving money," Sniado says, "but you can't push mindlessly toward that."

Today, staff costs and overhead can be greater in India than in parts of the United States, when taken as a whole, according to Malcolm Swallow, principal adviser with KPMG. Wage inflation is 10 to 15 percent in India, while many American cities face wage deflation, he says. And given the importance of labor costs in the offshore outsourcing equation, that's a significant change. Recently, the Hackett Group predicted that the number of IT jobs heading offshore will plateau by 2014.

The 80-20 offshore-to-onshore ratio may have served a purpose for a time as a change-management tool, but it's likely outlived its usefulness. "As corporations, it's important to set stretch goals for people. And [that ratio] told people, 'Hey, things are going to change,'" says former CIO Andrew Wasser, now associate dean of the Heinz College School of Information Systems and Management at Carnegie Mellon University and

head of its CIO institute. "But as with any tool or approach, you have to settle on a sweet spot, and some corporations may find that offshoring 25 percent is a slam dunk for them."

"Years ago, it was all about, 'How do I get that labor arbitrage? What are the roles and where can I source them?'" says Rich Pople, principal in charge of IT transformation consulting at the Hackett Group. "Now they're looking at that in the context of, 'What is the service I'm offering to the business and where is the rightful place to put that?'"

And newer automation and cloud computing options mean that traditional outsourcing is not the only option for CIOs who want to lower costs, meet variable demand, or increase efficiency, Pople adds.

While he was with Western Union, Dick juggled more than a dozen offshore outsourcing partners. "We had been through a pretty austere period with a renewed focus on cost. It was a play to self-fund more development," he says. The next step was "looking more at effectiveness and making sure that we have the right balance."

He winnowed his suppliers to three primary partners and took a more judicious approach to what goes offshore. In some IT functions, it might be as much as 70 percent. In others, staffing is largely domestic. "It has to be situational. It's really about



LET'S STOP COMPROMISING MOBILE SECURITY FOR MOBILE DIVERSITY.

INTRODUCING BLACKBERRY MOBILE FUSION.

Now all personal and corporate-owned BlackBerry®, iOS and Android devices can seamlessly access business data and applications on a single, secure management platform. To find out how this new approach will end mobile chaos, visit blackberry.com/mobilefusion

 **BlackBerry**
Be Bold

right-sourcing," says Dick. With IT enabling the expansion of the company's online business, Dick built a support team in San Francisco. "Heavy Web development and rapid lifecycles just work better when people are colocated," he says.

The cost concerns that steered the company offshore haven't gone away, but the way he addressed them became more nuanced. "There's still a lot of pressure," says Dick. "You have to deliver the highest value you can for the dollar that's being invested."

Seeking the Right Mix

"Outsourcing—and a subset of that, offshore outsourcing—is a major part of how we deliver IT services," says Dan Priest, CIO of Toyota Financial Services, who inherited the model two years ago from a predecessor. It was always clear what IT competencies the company wanted to retain—architecture, requirements management, standards setting and business analysis, and quality assurance.

Until it wasn't.

As IT readied software changes to support the company's first new insurance product in 17 years, it ran into a problem. "There was a breakdown. We were losing records in the file transmission from one system component to another. And that second system component was a black box for us," says Priest. IT hadn't just outsourced the development of that component, it had outsourced the institutional knowledge associated with it. And it wasn't just outside the organization, it was ten time zones away. Instead of taking a day to remedy, it took a week.

"We moved so quickly into outsourcing. Hindsight being

20-20, you'd want to more gradually move towards the right [sourcing] mix," he says. "If I had to do it over again, we would have focused on keeping all tech lead roles in-house so that we understand not just what something does, but how it does it."

It's a logical approach, perhaps, but one that few considered in the past. "For a long time, that would not have been a popular notion, and not just

at Toyota Financial Services," Priest explains. "The popular idea is that code is commoditized. You can outsource it. But it's very hard to separate perfectly the strategy and execution [of systems]."

Priest is trying to bring that lost knowledge back, but "we're never going to recapture it all. We have hundreds of systems," he says. So he's focusing on know-how about the company's most critical technologies. And he's shifting his sourcing strategy for new development. "There are certain positions related to integration, Web and mobile that in the past we would have outsourced that we're taking a second look at," says Priest. "We place a big premium on technology-enabled innovation, and we realized that the more we know about our systems, the better we are able to contribute."

Priest and his team now review completed projects to deter-

mine whether there's a correlation between a project's success and where it was done. "Anecdotally, we find that it's easier to solve and prevent problems when people are working in close proximity," he says. "We're going to do more onshore, if it's viable."

A project with a three-month turnaround, for example, is difficult to accomplish overseas. "We may have done it in the past for labor arbitrage reasons. But if it takes three times as many resources, you lose that," Priest says. "The more complex the problem is, the harder it is to solve offshore. We're trying to figure out the efficiency-effectiveness balance."

IT organizations are finally figuring out how to merge quality and cost metrics to calculate the total cost of offshoring, says Michael Engel, managing partner at outsourcing consultancy Sylvan Advisory.

"Many companies are realizing the critical role that IT plays in driving competitive advantage," adds GE's Utterbeck, who is bringing positions in architecture, middleware, ERP, security, compliance and business intelligence back inside the company. "We find that having these roles in-house helps us to build and foster a consistency in solutions and approaches that we just didn't have relying on external providers."

Textron CIO Gary Cantrell is actually offshoring more work, but he's shifting it to the conglomerate's captive IT operations in India, which sit alongside its growing overseas engineering facilities. "We have a three-pronged sourcing strategy—offshore, outsourced, and in-house," says Cantrell. "In the beginning, we went full bore, outsourcing everything from the hairline down. Over the last few years, we've brought pieces of that back that we felt we needed to control. Now we're insourced from the chest up."

Textron's 500-person offshore development center—which will double in size over the next year—is handling much of the previously outsourced business intelligence projects that have grown in strategic importance. But even for this offshoring veteran, there are limits to what he sends overseas.

"There are certain things that our offshore teams do very well. If you have a clear statement of work—even if it's complex—and require limited interaction, the project works very well," he says. More ambiguous projects requiring close interaction with a business partner or customer are less successful.

For example, when crafting Textron's new distribution system for its E-Z-GO golf carts, developers and analysts worked side-by-side in Augusta, Ga., to create processes for streamlining the loading of carts for shipping.

The goal is to bring as much of the core work as possible back inside the walls of Textron, whether those buildings are in Bangalore, India, or Fort Worth, Texas. "Our default in the past was to outsource. Now it's 180 degrees in the other direction," says Cantrell. "Whenever possible, we want to do the work with our captive teams. We want to get to a place where we're pretty much self-supporting."

But don't call it an insourcing effort. "This hasn't been a concerted decision to bring [a set percentage of work] back in," Cantrell explains. "But as we did our outsourcing, we found certain things weren't working the way we wanted them to. So as an issue pops up, we do root-cause analysis and make a decision."

"We're seeing a real limit on the type of work we can offshore."

—JOE SNIADO, CIO, STANDARD & POOR'S

Higher-Touch Outsourcing

"One of the mistakes people make is they think outsourcing will require less oversight and active management," says Dick, the former Western Union CIO. "It doesn't."

That's a truth the company learned the hard way, having fully outsourced IT fifteen years ago. "They outsourced it all to one vendor, and the mistake they made was that they outsourced a lot of the intellectual property," Dick says. "The business had the belief that we had so many IT problems, why not just source it somewhere else. We had to rehire and rebuild that intellectual property."

At Toyota Financial Services, Priest is getting more involved in how his service providers staff his account. "We're competing for a supply of very specific talent," he says. "I care less about the number of heads than the skill set."

That's a revolution in attitude. "In the past you'd say, 'I want these services at these service levels at this price,' and let the supplier deal with how they achieve the results," Priest says. "Part of the reason for outsourcing was so that you wouldn't have to deal with talent management."

Today, Priest collaborates with his suppliers on who gets deployed on his accounts and how to retain talent. His managers spend time with the new team during its first few days to evaluate its makeup, and they keep the offshore partners well informed about the project pipeline so the best workers don't

"Our default in the past was to outsource. Now it's 180 degrees in the other direction."

—GARY CANTRELL, CIO, TEXTRON

roll off to another client. "You can't wash your hands of the [HR] challenges," Priest says.

The only trouble with this new normal when it comes to sourcing strategy is that there is no normal anymore: No 80-20 goal to shoot for, no indisputable definitions of "commodity" and "core competency." The mix of offshoring and onshoring and outsourcing and insourcing will vary by industry, company, even individual CIO and IT organization.

But that's a good thing, say IT leaders and outsourcing industry watchers. It means that sourcing decisions are being made based on real business needs and outcomes rather than in service of mindlessly chasing a ratio or labor arbitrage target.

"There really aren't any standard practices or benchmarks for these kinds of [sourcing] decisions anymore," says Priest. "You have to do what is right for the business." **CIO**

Stephanie Overby is a freelance writer based in Massachusetts.

Whenever Wherever

With Box, I run the entire company off my iPad.

— Lance Locher, Founder, Clear Channel-TTN



**82% of Fortune 500s Manage Content
Simply and Securely With Box®**

Get the FREE CIO TOOLKIT: www.box.com/ciokit

box

SALES AND SERVICES

CIO SALES OFFICES

President and CEO

Michael Friedenberg
508 935-4310

SVP, Group Publisher & CMO

Bob Melk • 415 975-2685

Publisher Emeritus

Gary J. Beach • 508 935-4202

VP/Publisher

Adam Dennison • 508 935-4087

Sales Operations Manager

Christine McKay • 508 988-7836

Senior Sales Operations Coordinator

Bethany Whiffin • 508 935-4092

Sales Operations Coordinator

Megan Roman • 508 820-8123

EAST COAST

Account Director, Integrated

Ellie St. Louis • 201 634-2332

Account Coordinator

Lindsay Perkins • 508 766-5345

NEW ENGLAND/CENTRAL

Account Director, Integrated

Brian Keenan • 847 508-8428

Account Coordinator

Stephanie Moran • 508 935-4154

WEST COAST

Regional Sales Director, Integrated

Kevin Ebmeyer • 415 975-2684

Account Coordinator, Integrated

Marty Anderson • 415 975-2683

Account Director, Integrated

Ai Collins • 415 975-2686

Account Coordinator

Lauren Eckenfelder
415 935-2687

CUSTOM SOLUTIONS GROUP

Senior VP

Charles Lee • 508 935-4796

National Director Program Development

Karen Wilde

Eastern Sales Director

Brett Ferry • 508 988-6941

Senior Editorial Director

Jim Malone

Editorial Director

Bill Laberis

Senior Managing Editors

Debra Bulkeley

Stan Gibson

Managing Editors

Joyce Chutchian

Senior Project Operations Manager

Amy Greenleaf

Project Managers

Karen Capland

Maro Eremyan

James Lenza

Allison Lutes

Associate Project Manager

Jennifer Mariani

Program Coordinator

Corissa Donaghy

Associate Program Developer

Meghan Shepp

Designer

Kim Han

ONLINE SALES

Senior VP, Online Sales

Brian Glynn • 508 935-4586

Account Director, Digital, East Coast

Richard Hartman • 508 935-4487

Account Directors, Digital, West Coast

Carmen Facas • 415 975-2681

Erika Karr • 415 978-3329

Director of Online Account Services

Danielle Thorne • 508 988-7969

Online Account Services Team Leads

Beverly Lloyd • 508 988-6765

Tara Shea • 508 988-7877

PRODUCTION

VP, Manufacturing

Chris Cuoco • 508 988-7565

Production Manager

Lisa M. Stevenson • 508 935-4591

LIST SERVICES

Contact Stephen Tozeski of IDG List Services at 508 766-5633 or stozeski@idglist.com.

CIO is published in the U.S. as well as in:

Argentina, CIO Cono Sur
<http://conosur.cio.com>

Australia, CIO Australia
www.cio.idg.com.au

Brazil, CIO
www.cio.com.br

Bulgaria, CIO Bulgaria
www.cio.bg

Canada, CIO Canada
cio.itworldconodo.com

China, CEOCIO China

www.ceocio.com.cn

Finland, CIO

www.cio.fi

France, CIO France

www.cio-online.com

Germany, CIO IT-

Strategie für Manager

www.cio.de

India, CIO India

www.cio.in

Japan, CIO Magazine Japan

www.ciojp.com

New Zealand,

CIO New Zealand

www.cio.co.nz

Norway,

CIO Computerworld Forum

www.idg.no/cio

Pakistan, CIO Pakistan

www.ciopakistan.com

Poland, CIO

www.cio.cxo.pl

Portugal, CXO

www.cxo.com.pt/

Russia, Chief Information

Officer Magazine

www.cio.ru

Singapore, CIO Asia

www.cio-asia.com

South Korea, CIO Korea

www.ciokorea.com

Sweden, CIO Sweden

www.cio.idg.se

Taiwan, CIO Taiwan

www.cio.com.tw

United Kingdom,

CIO Magazine

www.cio.co.uk

CIO CONTACT INFORMATION

Editorial, Advertising and

Business Offices: CXO Media Inc.,
492 Old Connecticut Path, P.O. Box
9208, Framingham, MA 01701-
9208, 508 872-0080.

CIO (ISSN 0894-9301) is published monthly, with additional issues in May, June, September, October and November by CXO Media Inc. Periodicals postage paid at Framingham, MA, and at additional mailing offices. Canada Publications Mail Agreement Number PM40063731. CANADIAN POSTMASTER: Please return undeliverable copy to P.O. Box 1632, Windsor, ON N9A 7C9.

Reprints & Permissions:

For information about reprints and copyright permissions, please contact The YG5 Group, 800-290-5460, ext. 100, cio@theygsgroup.com.

Photocopy Rights: Permission to photocopy for internal or personal use or the internal or personal use of specific clients is granted by CIO for users through the Copyright Clearance Center, provided that a fee of \$3.50 per copy of the article is paid directly to Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01970. www.copyright.com. Please specify: ISSN 0894-9301. Permission to photocopy does not extend to contributed articles followed by this symbol: ‡.

Subscriptions: CIO is free to qualified information executives. To apply, use our online subscription form at <http://www.cio.com/subscription-services>. Subscriptions are also available on a paid basis at a rate of \$129 for the United States and Canada, \$195 International (payable in U.S. funds only) and may be ordered online at <http://www.cio.com/subscription-services>. Or address inquiries to CIO, P.O. Box 489, Northbrook, IL 60065-0489; 866 354-1125. Please allow four to six weeks for a new subscription to begin. The single copy price is \$9 for the United States and Canada, and \$15 International. Digital annual subscription \$29. Prepayment is required, payable in U.S. funds.

Change of Address: Please go to <http://www.cio.com/subscription-services> and follow the online instructions.w

Postmaster: Send change of address to CIO, P.O. Box 489, Northbrook, IL 60065-9816. Printed in the U.S.A.

INDEX OF COMPANIES AND ADVERTISERS

Page numbers refer to the first page of the article(s) in which the company has a substantial mention.

This index is provided as a service to readers. The publisher does not assume any liability for errors or omissions.

COMPANY INDEX

Commonwealth Financial Network	11
County of Orange California	16
Forrester Research, Inc.	18
Gartner, Inc.	6
General Electric Co.	4, 22
HfS Research Ltd.	24
Information Services Group, Inc.	24
KPMG LLP	26
Microsoft Corp.	18
Monash Research	18
Navint Partners, LLC	24
Projective Globe	32
Standard & Poor's Financial Services LLC	4, 24
Textron, Inc.	4, 28
The Hackett Group, Inc.	26
The Western Union Co.	4
Toyota Financial Services	4, 28
Westcon Group, Inc.	20

ADVERTISER INDEX

AT&T	15
Box	29
CenturyLink Business	25
CIO Executive Council	19
Dassault Systèmes	17
Hewlett-Packard Development Company, L.P.	21
IBM Corp.	9, C3
NetApp	C4
NTT Data	10
Research In Motion	27
Samsung Enterprise	7
SAP	C2
ShoreTel	2
SonicWALL	5
SunGard Availability Services	13
Tech Briefcase	31



**TECH
BRIEFCASE**

**NEW
APP**

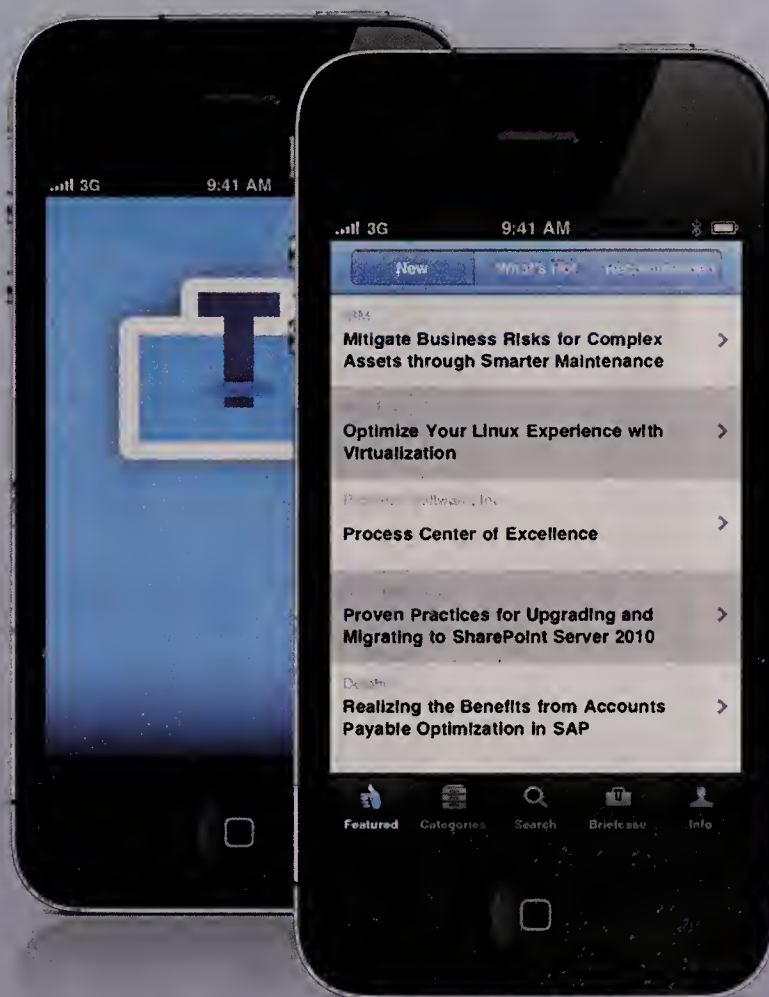
Search, store, and share
IT white papers from across the web.

Search thousands of relevant
IT white papers.

Organize what you find by
tag or project.

Store and access them
from your phone or desktop.

Share your briefcase content
with colleagues and friends.



Download the Tech Briefcase app
from the iTunes App Store.



Available on the
App Store



Jukebox Social

Music sharing once meant gathering 'round the jukebox and listening with your friends to a dime's worth of songs. Now Phonogram, a free iPhone app developed by communications and content-sharing platform provider Projective Globe, aims to bring back the experience of hearing the songs that your friends like best by allowing them to play DJ with the music on your device. To avoid the complicated licensing and copyright issues that have plagued other music-sharing platforms, Phonogram requires listeners to be nearby—they have to connect via Bluetooth or be on the same Wi-Fi network. “You violate copyright laws if you’re not physically there,” says Mehran Shahmiri, a strategist at Projective Globe. “We wanted to make it as fair to the artists as we can.” Artists also benefit from the fact that listeners get links to iTunes or Amazon to purchase any songs from their friends’ setlists that they don’t already have. The app got 1,200 downloads in its first month, and in that time users bought more than 100 songs.

—Lauren Brousell

Building the engines of a Smarter Planet:

Our cloud takes care of the work. You take care of your business.

As IT budgets shrink, it's even harder for midsize businesses to manage IT resources and quickly respond to change. That's why IBM SmartCloud™ solutions are flexible, cost effective and offer access to security-rich virtual server environments — benefits that help any business innovate and reach markets fast. And whether the solution is delivered over a public, private or hybrid cloud, IBM and its Business Partners can help midsize businesses take all or part of their IT infrastructure to the cloud, and their business even higher. Choose IBM SmartCloud to:



Help improve productivity.

By provisioning new machines and gaining instant access to new resources and software, businesses are always ready to adapt to a changing marketplace.

Use resources more effectively.

IBM can identify areas that can be moved to the cloud, quickly freeing up skilled IT staff to work on higher-value initiatives.

Reduce IT costs.

Using pay-as-you-go with IBM SmartCloud can help reduce the need to invest in new hardware and cut IT infrastructure costs by up to 50%¹.

Partner with experts.

IBM and its Business Partners have decades of experience in providing consulting and integration services for the most complex of data centers.

IBM SmartCloud Enterprise

Flexible pricing estimated, starting around
\$56 per month

To connect with an IBM Business Partner,
call **1-877-IBM-ACCESS** or visit **ibm.com/cloud**

Midsize businesses are the engines of a Smarter Planet.



¹Based on results from IBM's Technology Adoption Program. Results may vary depending on the client's existing environment. Final results can be ascertained after a return-on-investment analysis. Offer is subject to change or withdrawal without notice. IBM, the IBM logo, ibm.com, SmartCloud, Smarter Planet and the planet icon are trademarks of International Business Machines Corp., registered in many jurisdictions worldwide. Other product and service names might be trademarks of IBM or other companies. A current list of IBM trademarks is available on the Web at www.ibm.com/legal/copytrade.shtml. © International Business Machines Corporation 2011.

Smarter storage enabled SOFTBANK Group to help lift a nation.

To see how SOFTBANK Group rapidly
deployed White Cloud services to the public
within three days of the Japan earthquake
and tsunami, visit NetApp.com/BuiltOn.

 SoftBank



Businesses built on NetApp go further, faster

©2012 NetApp. All rights reserved. Specifications are subject to change without notice. NetApp, the NetApp logo, and Go further, faster are trademarks or registered trademarks of NetApp, Inc., in the United States and/or other countries. All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such.

